Notes on the neotropical genus *Kentroleuca* Draudt, 1930 with description of two new species (Lepidoptera: Saturniidae, Hemileucinae, Hemileucini)

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Abstract. Two new species of *Kentroleuca* Draudt, 1930 are described. *Kentroleuca* ***griseoalbata*** **n. sp.** is from South and Southeast Brazil and it is similar to *K. spitzi* Lemaire, 1971 and *K. boliviensis* Brechlin & Meister, 2002 from which it differs mainly by the wing shape and groundcolour, tibial spurs, and geographical range. *Kentroleuca* ***brunneategulata*** **n. sp.** is similar to *K. dukinfieldi* (Schaus, 1894), but the former differs primarily by the light brown tegula, instead of black, postmedial line on forewing, discal cell veins and by the phallus. Both male holotypes are deposited in the collection Pe. Jesus S. Moure in Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil. The geographical distribution of *K. novaholandensis* Lemaire & C. Mielke, 2001 is updated.

Key words: Distribution, taxonomy.

Notas sobre o gênero neotropical *Kentroleuca* Draudt, 1930 com a descrição de duas novas espécies (Lepidoptera: Saturniidae, Hemileucinae, Hemileucini)

Resumo: Duas novas espécies de *Kentroleuca* Draudt, 1930 são descritas. *Kentroleuca* ***griseoalbata*** **sp. n.** ocorre no sul e sudeste brasileiro e é similar a *K. spitzi* Lemaire, 1971 e *K. boliviensis* Brechlin & Meister, 2002, no entanto se difere pelo formato e coloração das asas, pelo esporão tibial e pela distribuição geográfica. *Kentroleuca* ***brunneategulata*** **sp. n.** é similar a *K. dukinfieldi* (Schaus, 1894), mas se difere primeiramente pela coloração marrom da tégula ao invés de preto, pela linha pós-medial da asa anterior, pela venação marcada dentro da célula discal anterior e pelo edeago. Ambos os holótipos machos estão depositados na coleção Pe. Jesus S. Moure no Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brasil. A distribuição geográfica de *K. novaholandensis* Lemaire & C. Mielke, 2001 é atualizada.

Palavras chave: Distribuição, taxonomia.

Anmerkungen zur neotropischen Gattung *Kentroleuca* Draudt, 1930 mit Beschreibung zweier neuer Arten (Lepidoptera: Saturniidae, Hemileucinae, Hemileucini)

Zusammenfassung: Es werden zwei neue Arten der Gattung *Kentroleuca* Draudt, 1930 beschrieben. *Kentroleuca* ***griseoalbata*** **n. sp.** stammt von Süd- und Südostbrasilien und erinnert an *K. spitzi* Lemaire, 1971 und *K. boliviensis* Brechlin & Meister, 2002. Von beiden unterscheidet sie sich hauptsächlich in der Flügelform und Färbung, in den Tibialspornen und der geografischen Verbreitung. *Kentroleuca* ***brunneategulata*** **n. sp.** ist ähnlich der *K. dukinfieldi* (Schaus, 1894), von der sie sich in den hellbraunen (anstelle schwarzen) Tegulae, der Postmedianlinie der Vorderflügel, den Adern in der Diskalzelle und im Phallus unterscheidet. Beide männliche Holotypen sind in der Sammlung Pe. Jesus S. Moure im Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brasilien, deponiert. Zur Kenntnis der geografischen Verbreitung von *K. novaholandensis* Lemaire & C. Mielke, 2001 gibt es einen Nachtrag.

Schlüsselwörter: Verbreitung, Taxonomie.

Introduction

Kentroleuca includes presently six species, four of them endemic to Brazil:

- *K. lineosa* (Walker, 1855),
- *K. spitzi* Lemaire, 1971,
- *K. novaholandensis* Lemaire & C. Mielke, 2001, and
- *K. dukinfieldi* (Schaus, 1894);

one endemic to Bolivia:

- *K. boliviensis* Brechlin & Meister, 2002;

and one with a wider range in Brazil and Bolivia:

- *K. albilinea* (Schaus, 1908)

(see Camargo & Becker 1999, Lemaire & C. Mielke 2001, Lemaire 2002).

The present article raises the number of species included in *Kentroleuca* to eight, six being endemic to Brazil.

Collections abbreviations:

CAP Col. Antonio Pessoa, Sobral, Ceará, Brazil;
CEF Col. Eurides Furtado, Diamantino, Mato Grosso, Brazil;
CGCM Col. Carlos G. C. Mielke, Curitiba, Paraná, Brazil;
CPAC Col. Embrapa Cerrados, Planaltina, Federal District, Brazil;
UFPC Col. Pe. Jesus S. Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil.

Kentroleuca griseoalbata n. sp.

Figs. 1a, 1b, 2a, 2b, 3, 4, 5.

Holotype ♂: "Holotypus, *Kentroleuca griseoalbata* C. Mielke & Furtado det. 2006", "Brasil, São Paulo, Itararé, 10. xi. 1982, Rodrigues leg.", "DZ 9.709". Deposited in UFPC. Figs. 1a, 1b.

Paratypes (in total 2 ♂♂, 3 ♀♀; all **Brazil, Paraná**): 1 ♀ (CGCM 20.490), Tibagi, C. Mielke leg.; 1 ♀ (CGCM 14.459), Carambeí, 8. xii. 1998, C. Mielke leg.; 2 ♂♂, 1 ♀ (CGCM 833, 20.043, 1.555), Castro, Canyon Guartelá, 900 m, 14. xi. 1999, C. Mielke leg. (Fig. 14).

Etymology. The name refers to the ground colours of the species. It is herewith defined as a noun in apposition.

Diagnosis, ♂ (Figs. 1a, 1b). Wingspan 60 mm, forewing length 31 mm (paratype: 33 mm). Antennae (ca. 55 segments): proximal rami faint yellow, distal rami black. Frons light brown, labial palpi little darker than frons. Thorax dorsally light brown with a central black band. Legs light brown; tibia spurs 0–2–4. The foretibia bears an epiphysis of ¾ of its length, and an apical outer spine. Forewing moderately elongated, apex slightly rounded, not pronounced, outer margin slightly convex; groundcolour gray, basal area darker; postmedial line and both striae (discal cell and between 1A+2A and CuA1) white; veins yellow. Hindwing coloured as on forewing, baso-median area suffused with white, postmedial line curved. Abdomen dorsally dark yellow, ventrally light brown, spiracles black surrounded by white. Genitalia

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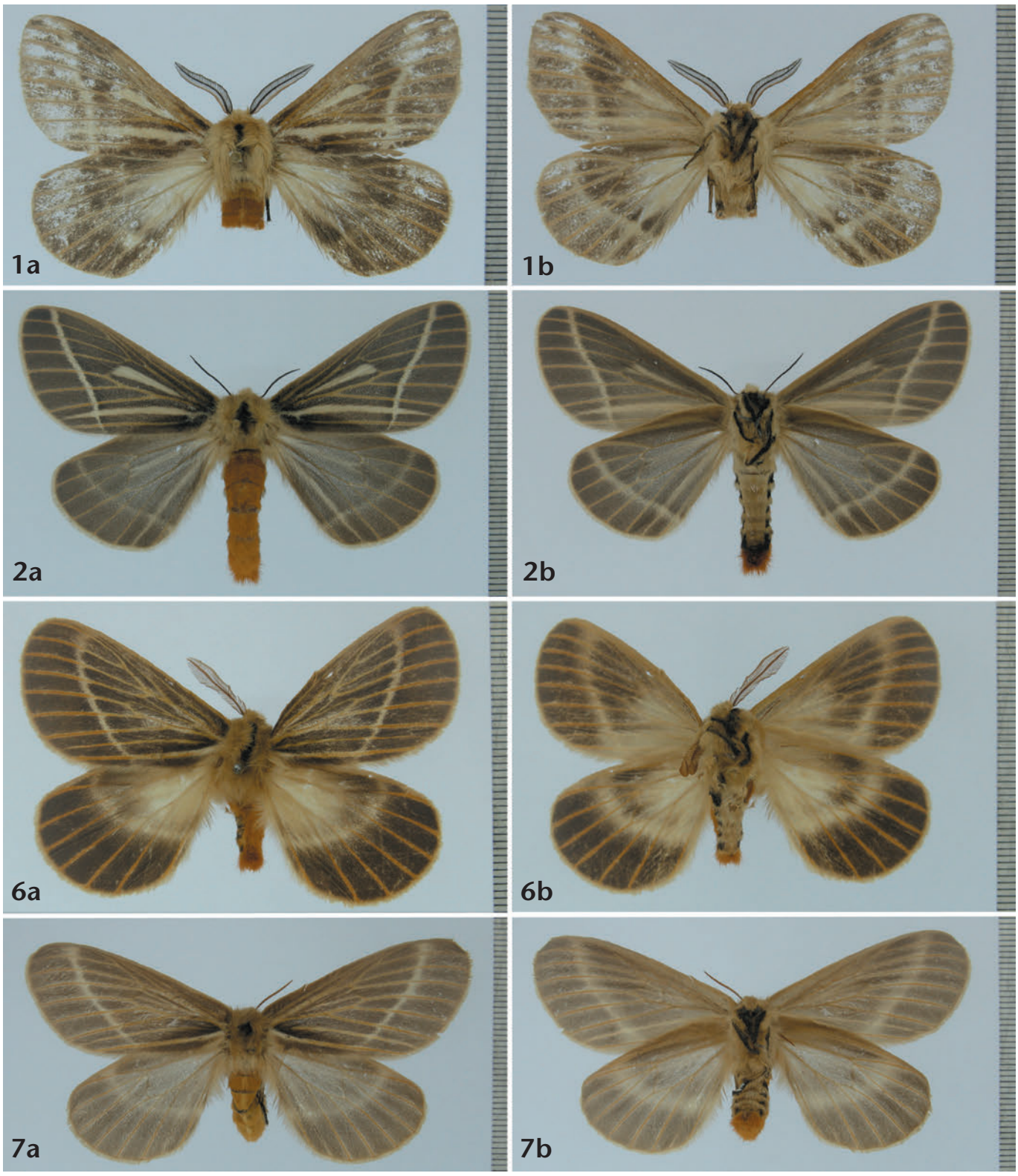

Colour plate: Figs. 1–2: *Kentroleuca griseoalbata* n. sp. **Fig. 1:** HT ♂ dorsal (a), ventral (b). **Fig. 2:** PT ♀ dorsal (a), ventral (b). — **Figs. 6–7:** *Kentroleuca brunneategulata* n. sp. **Fig. 6:** HT ♂ dorsal (a), ventral (b). **Fig. 7:** PT ♀ dorsal (a), ventral (b). — Scales in mm.

(Figs. 3–5) is typical of *Kentroleuca* with an single uncus, apically downcurved; gnathos a broad and transverse band posteriorly produced, fused to the tegument; valves broad, laterally produced; saccus broad; phallus (Fig. 5) downcurved, vesica lacks the cornutus and is bilobed, longer lobule and bulbus ejaculatorius about $^{2}/_{3}$ (possibly 1:1) and ¼ of the phallus length, respectively (this lobule is longer, since it could not be evaginated totally).

♀ (Figs. 2a, 2b). Wingspan 64 mm, forewing length 36 mm. Head similar to the ♂ except for the antennae simple and black. Thorax and abdomen similar to the ♂, except for the absence of the white suffused area on hindwing.

Discussion. *Kentroleuca griseoalbata* n. sp. is similar to *Kentroleuca spitzi* in the presence of an epiphysis in the ♂ and its absence in the ♀, the presence of the foretibia apical spine, and the absence of a cornutus on the vesica. On the other hand, it differs from *Kentroleuca spitzi* and

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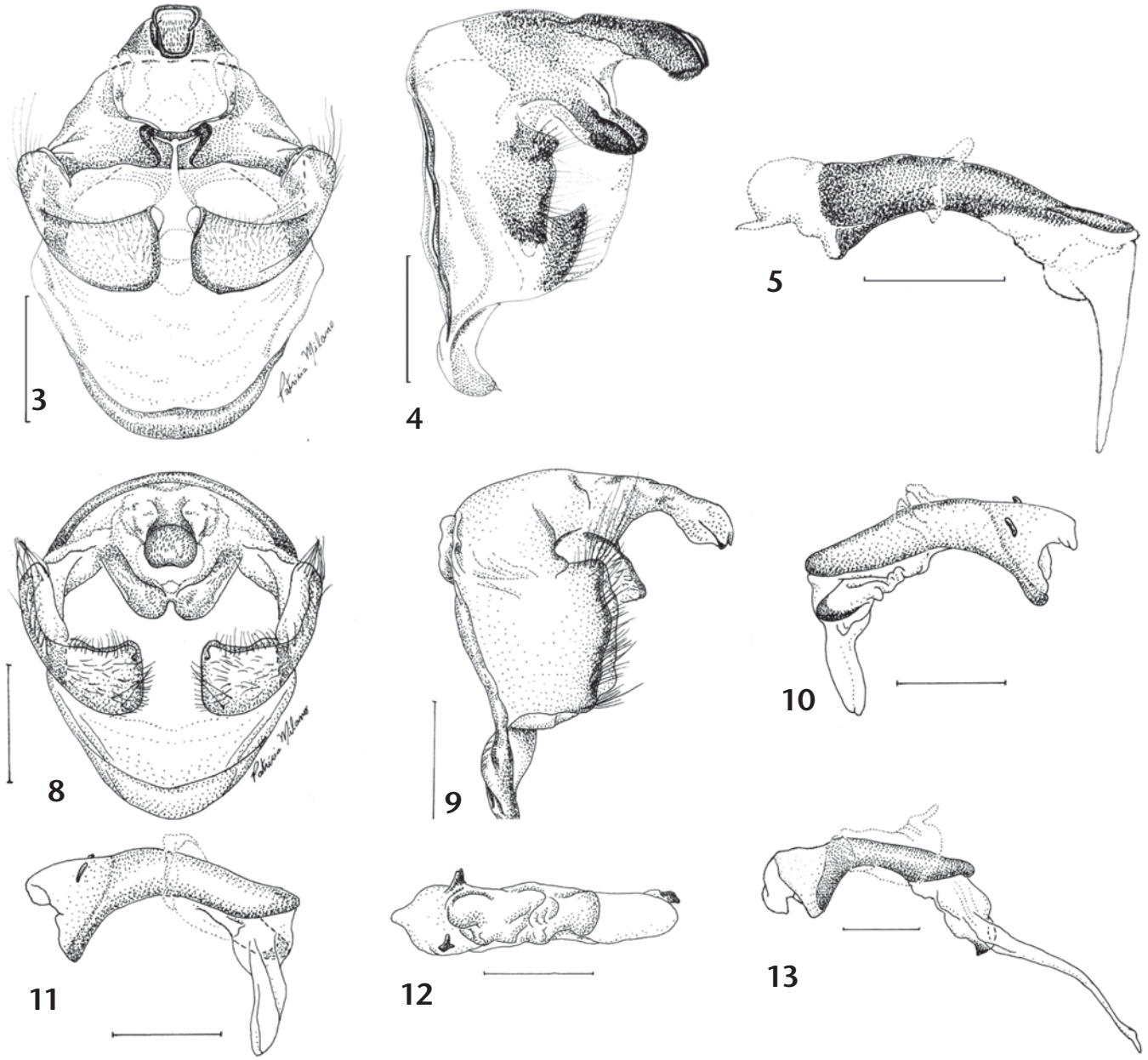

Figs. 3–5: *Kentroleuca griseoalbata* n. sp., ♂ genitalia (HT): posterior view (3), lateral view (4), phallus lateral view (5). **Figs. 8–12:** *Kentroleuca brunneategulata* n. sp., ♂ genitalia (HT): posterior view (8), lateral view (9); phallus: right lateral view (10), left lateral view (11) and dorsal view (12). **Fig. 13:** *Kentroleuca dukinfieldi,* ♂ genitalia: phallus left lateral view. — Scales: 1 mm; not all illustrations to the same scale.

K. boliviensis by the groundcolour, wing shape, hindwing suffused area, tibial spurs 0–2–3 in *K. spitzi* and by its geographical range.

Lemaire (2002) mentioned that *K. albilinea* occurs in Paraná, Carambeí. Actually, this species has no record to this state yet, and this locality record refers to a ♀ of *K. griseoalbata* sp. n.

Ethology. All specimens collected by the senior author were attracted by UV light. ♀♀ arrived early in the night and ♂♂ in early morning.

Kentroleuca brunneategulata n. sp.

Figs. 6a, 6b, 7a, 7b, 8, 9, 10, 11, 12.

Holotype ♂: "Holotypus, *Kentroleuca brunneategulata* C. Mielke & Furtado det. 2006", "Brasil, Goiás, Santa Maria, 13. x. 1972", "DZ 8.633", "Ex coll. Gagarin". Deposited in UFPC. Figs. 6a, 6b.

Paratypes (in total 13 ♂♂, 11 ♀♀; all **Brazil**): **Goiás:** 1 ♀ (CGCM 15.969), Barro Alto, 12. x. 1992, Tangerini leg.; 2 ♀♀ (UFPC 9.098, 9.091), Cilu (between Luziânia and Vianópolis), 9. x. 1969, 7. x. 1972, ex coll. Gagarin; 1 ♂ (CGCM 15.838), Alto Paraíso, 1400 m, 3. x. 1985, V. O. Becker leg.; 2 ♂♂ (CGCM 14.743, 11.378), Vianópolis, Ponte Funda, 13. x. 1971, 15. x. 1971, Tangerini leg.; 1 ♂ (UFPC 9.083), Vianópolis, Ponte Funda, 15. x. 1966, Tangerini leg, ex coll. D'Almeida; 2 ♂♂ (CEF 13.205, 13.206), Cilu (between Luziânia and Vianópolis), 16. x. 1969, Tangerini leg. — **Federal District:** 1 ♀ (CGCM 15.471), Planaltina, 1000 m, 26. x. 1976, V. O. Becker leg., S 15°35′, W 47°42′; 4 ♂♂, 1 ♀ (CPAC 6.153, 8.115, 10.181, 8.093), Planaltina, 1000 m, 25. x. 1984, 16. x. 1979, 22. x. 1977, 19. xi. 1976, 9. x. 1979, V. O. Becker leg., S 15°35′, W 47°42′; 1 ♀ (UFPC 8.641), Brasília, Santa Maria, 8. x. 1972, ex coll. Gagarin. — **Mato Grosso:** 1 ♂, 2 ♀♀ (CEF 6.396, 6.397, 7.336), Diamantino, Rio Arinos, 15. x. 1984, 18. x. 1985, 4. x. 1984, E. Furtado leg. — **Mato Grosso do Sul:** 1 ♀ (CGCM 15.159), Rio Brilhante, 23.–27. x. 1970, V. O. Becker leg. — **Minas Gerais:** 1 ♀ (UFPC 9.090),

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Belo Horizonte, 17. XII. 1924, B. R. DA SILVA, ex coll. GAGARIN; 2 ♂♂ (CGCM 14.947, 15.633), João Pinheiro, X. 1992, TANGERINI leg. – **Paraná:** 1 ♀ (UFPC 9.099), Jaguariah. (probably = Jaguariaíva), X. 1953, C. BRULIN, ex coll. F. JUSTUS (Fig. 14).

Etymology. The name refers to the main character of the new species, the tegulae. It is herewith defined as a noun in apposition.

Diagnosis, ♂ (Figs. 6a, 6b). Wingspan 59 mm, forewing length 32 mm (paratypes: 28–33 mm). Antennae (ca. 58 segments) rusty yellow. Frons light brown, labial palpi dark brown. Thorax dorsally light brown with a central black band, tegulae light brown. Legs light brown, distally black; tibia spurs 0–2–4. The foretibia bears an epiphysis of ¾ of its length. Forewing moderately elongated, apex slightly rounded, not pronounced, outer margin convex; grayish-brown groundcolour; postmedial line light gray and parallel to outer margin curved posteriorly inwards; striae absent; veins yellow, well contrasting, and marked inside the discal cell. Hindwing coloured as on forewing, baso-median area suffused with white, postmedial line curved. Abdomen dorsally dark yellow, ventrally light brown, spiracles black, surrounded by white. Genitalia (Figs. 8–12) bear a single uncus, apically downcurved; gnathos a broad and transverse band posteriorly bilobed, fused to the tegument; valves broad, laterally produced; saccus broad; phallus (Figs. 10–12) downcurved, bulbus ejaculatorius and vesica about $^{1}/_{10}$ and $^{2}/_{3}$ of the phallus length, respectively; vesica bilobed, and the shortest lobule bears a cornutus.

Fig. 14: Geographical distribution in Brazil of the species described.

♀ (Figs. 7a, 7b). Wingspan 64–80 mm, forewing length 33–41 mm. Head similar to the ♂ except for the antennae simple (ca. 58 segments). Thorax and abdomen similar to the ♂, except for the absence of the white suffused area on hindwing. Epiphysis $^{1}/_{10}$ of the length of the foretibia.

Discussion. *Kentroleuca brunneategulata* n. sp. is very similar to *Kentroleuca dukinfieldi* by the absence of both striae on the forewing. The new species is easily separated from the latter by the light brown tegula, postmedial line shape, discal cell veins and vesica (Fig. 13).

The ♀ of *K. dukinfieldi* figured by LEMAIRE (2002: pl. 112, fig. 7) is actually a ♀ of the new species.

Kentroleuca novaholandensis LEMAIRE & C. MIELKE, 2001

C. MIELKE et al. (2005) described the ♀ of this species and also mentioned new records. Recently, we got new data for this species from Brazil, Ceará, the first for this state, given by Dr. Antonio PESSOA:

1 ♂ (CAP 001), Brazil, Ceará, Guaraciaba do Norte, 1050 m, 17. II. 2006, A. PESSOA leg. (Fig. 14).

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